Compass-NAV Reverse Camera Installation manual

Caution – Documentation is an aid to successful installation. No liability is assumed for incorrect installation. If unsure of expertise required, please consult a qualified installation tech.

CNMD-R1 Camera shown
Sonata GL, GLS model

Compass-NAV Reverse Camera Installation manual

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- Follow installation manual instructions carefully. Installer must careful to not cause interference between Navigator System cabling and active / passive car safety device (Ex: Air bags, seat belts, indica tors, etc…)

- Before any attempt of component removal, the installer must disconnect the vehicle battery and isolate the ends of the cable.

- Do not attempt this installation operation if there are missing components. Please check the bill of materials carefully to ensure the kit is complete.

- Installation requires careful attention. If you have concerns about your abilities to perform delicate operations, then do not begin the installation.

- The car must be secured to not move during installation. Parking brake must be engaged at all times.

- Operation should be made in a clean, safe and well ventilated environment without trip hazards and slippery floors

- Do not install by yourself if you do not have qualifications and/or tools to perform the retrofit. You may damage the car's components and/or the Navigator if not professionally installed.

- Poor installation can result in poor performance, personal injuries and will immediately void the factory warranty.

- Do not install the Navigator in a position that blocks the driver's view or hinders safe vehicle operation.

Compass-NAV Reverse Camera
Installation manual

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Note

Installation Time is around **2 hours**

Do NOT RUSH and if issues occur contact technical support

Compass-NAV Reverse Camera Installation manual

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Bill of Materials – Page 6
2. Understanding your Cables & Connections + Schematics – Page 7
3. Trunk preparation and connections – Page 12
4. Power Cables Installation – Page 40
5. Other types of camera – Page 62

Compass-NAV Reverse Camera Installation manual

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Tools required for successful install -#1 = Patience!!!

½" Drive Ratchet
½" drive 6" extension
½" drive 13mm socket
¼ " Drive Ratchet
Fishing tool
5/16" Drill
Wide flat blade screwdriver

Shop Towels & Alcohol
7 X Black Tie wraps 3/16"
Electrical tape
¼" Drive 4" extension
Soldering iron
Wire strippers
Philips #2 screwdriver

Gloves
Solder
Solder paste
¼ "8mm socket
¼ "10mm Socket
Side cutters
Knife

Compass-NAV Reverse Camera Installation manual

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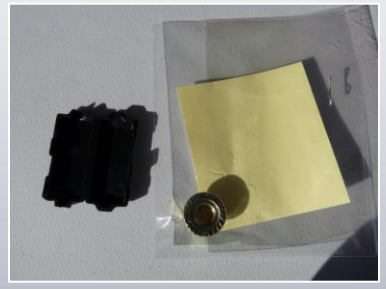
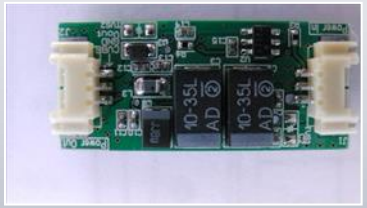
Bill of materials CNMD-R1 (Sonata GL, GLS)

Camera



Plastic Cover & Nut

Camera Power Cable



Transformer

Bill of materials CNMD-R2 (Sonata SE, Hybrid, Limited)

Camera

Screws

Camera Power Cable

Tail Gate Trim

Compass-NAV Reverse Camera
Installation manual

Caution – Documentation is an aid to successful installation. No liability is assumed for incorrect installation. If unsure of expertise required, please consult a qualified installation tech.

Section 2
Understanding your Cables & Connections

Compass-NAV Reverse Camera Installation manual

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Camera Power cable & video signal

- 21’ of cable
- RED Reverse Lamp signal for CN-M5
- RCA Video Signal Jack
- Video Signal input connector from Camera
- Y Splitter
- Fuse Holder
- RED Reverse Lamp Power
- BLACK Reverse Lamp Ground

Compass-NAV Reverse Camera Installation manual

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Camera Assembly

- Camera lens enclosure
- 8’ of cable
- Camera Video Signal output connector

Compass-NAV Reverse Camera Installation manual

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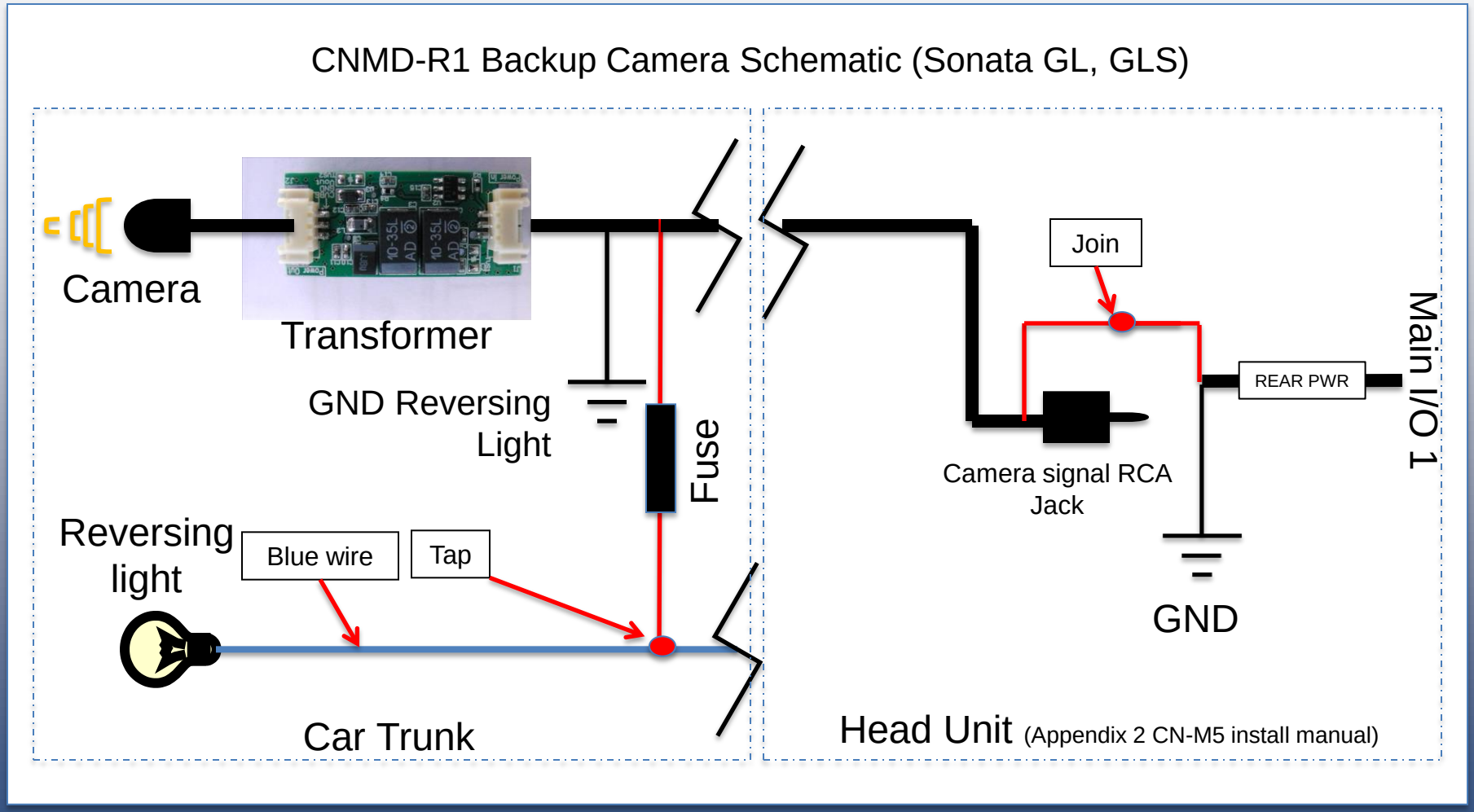

Compass-NAV Reverse Camera Installation manual

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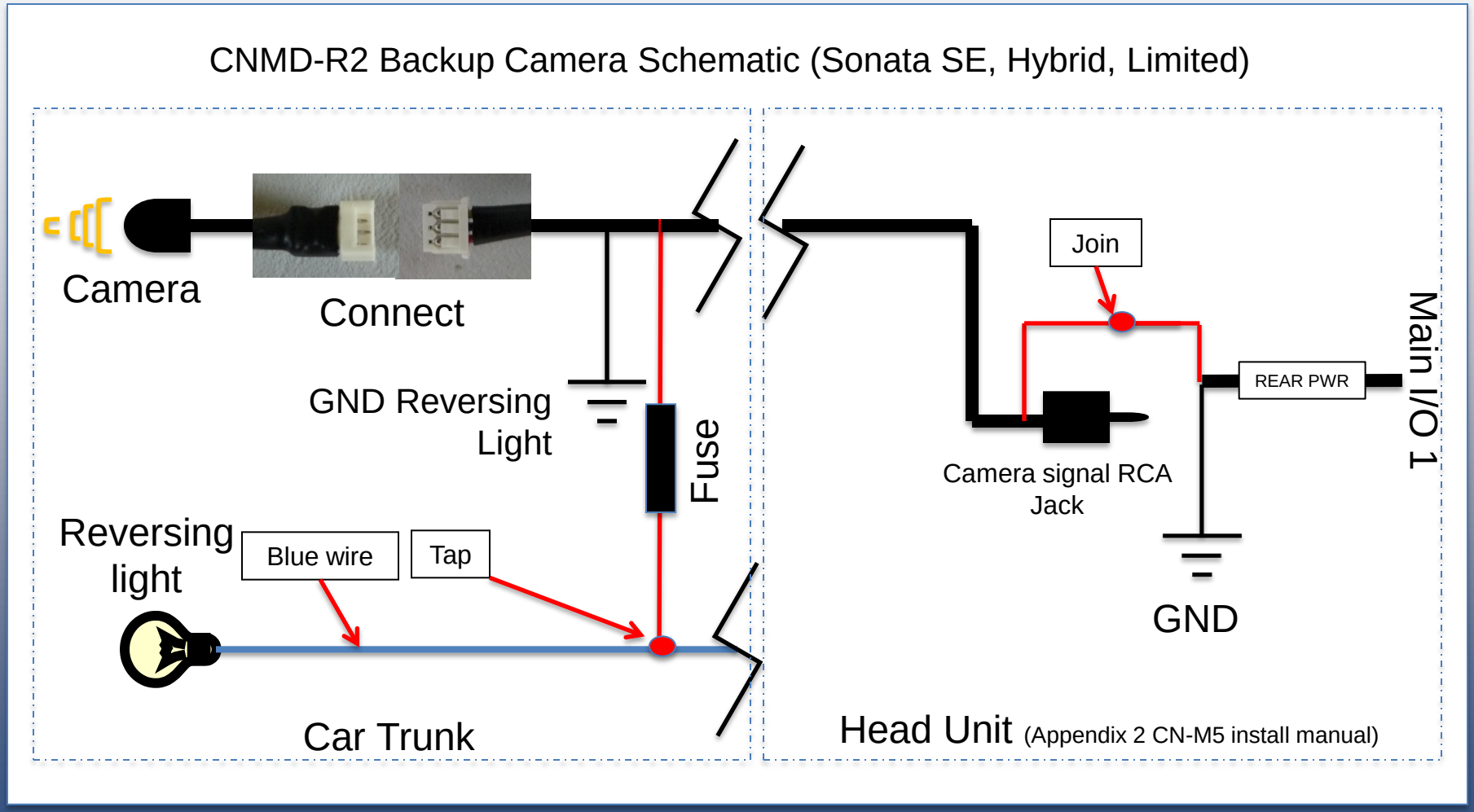

Compass-NAV Reverse Camera
Installation manual

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Section 3
Trunk preparation and Connections

Compass-NAV Reverse Camera Installation manual

Caution – Documentation is an aid to successful installation. No liability is assumed for incorrect installation. If unsure of expertise required, please consult a qualified installation tech.

Remove all 10 plastic screws retaining the interior lid

Compass-NAV Reverse Camera Installation manual

Caution – Documentation is an aid to successful installation. No liability is assumed for incorrect installation. If unsure of expertise required, please consult a qualified installation tech.

Locate the trunk handle and look for a little slot at the bottom of it. Using your flat screw driver, lift the handle cover to expose the 2 screws

Remove the 2 Phillips screws

Compass-NAV Reverse Camera Installation manual

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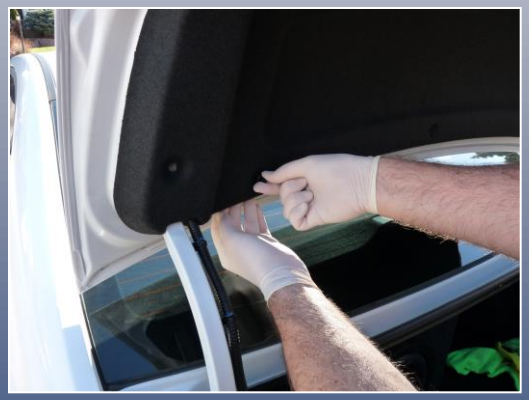
Unsnap the handle from the trunk



Starting at the bottom, remove the inside trunk lid.

Compass-NAV Reverse Camera Installation manual

Caution – Documentation is an aid to successful installation. No liability is assumed for incorrect installation. If unsure of expertise required, please consult a qualified installation tech.

Unplug the rear lenses connectors on both left and right side

Compass-NAV Reverse Camera Installation manual

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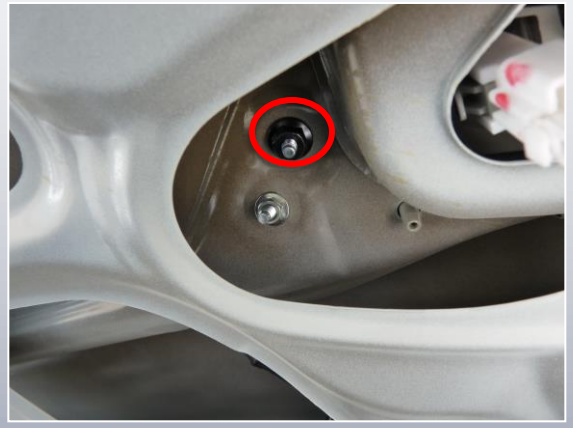

Proceed to the rear lenses removal by removing the black 10mm nut

Then the 2 nuts as shown. You can now remove the two lenses.

Compass-NAV Reverse Camera Installation manual

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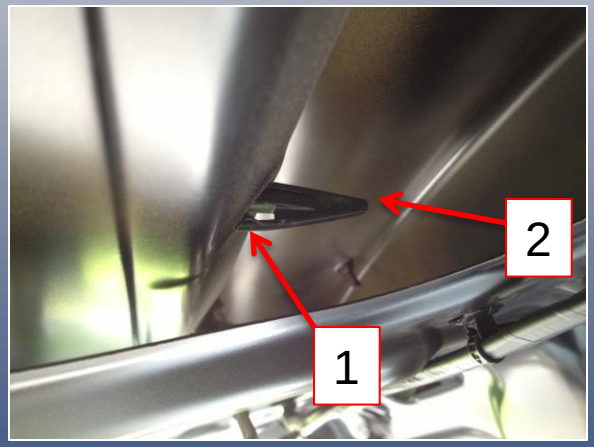
Now proceed to the chrome trim removal by unscrewing the 8mm nuts on both sides of the trunk

Starting by end of the chrome trim, pull out from the trunk cover. The end of the trim is well secured in place and you might need a bit of force to unsnap it.

Compass-NAV Reverse Camera Installation manual

Caution – Documentation is an aid to successful installation. No liability is assumed for incorrect installation. If unsure of expertise required, please consult a qualified installation tech.

Once the end is unsnapped, proceed with the removal of the trim. Be gentle and secure in a place where it won't be scratched.



Proceed with the removal of the GREY trim by disengaging de two retaining clips inside the trunk cover. 1- With a flat screw driver, apply pressure at the bottom of the clip 2- Push the end of the clip towards to outside. Repeat for the second clip.

Compass-NAV Reverse Camera Installation manual

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CNMD-R1 reverse camera for Sonata GL, GLS
Proceed to the next page

CNMD-R2 reverse camera for Sonata SE, Hybrid, Limited
Proceed to page 23

Compass-NAV Reverse Camera Installation manual

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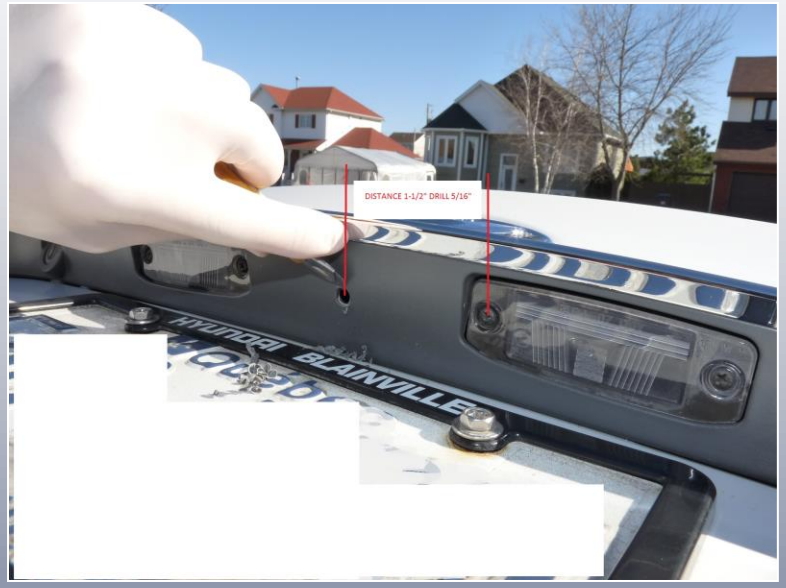

Picture above doesn't represent the correct procedure.
The GREY trim should be removed from the trunk at this point.

In the middle of the two licence plate lights, drill a 5/16" hole.

BE CAREFUL!!! Before drilling, make sure to move away the electrical wires behind the trim. If necessary, unclip the wires temporarily before drilling.

Clean-up the burrs around the drilled hole with a knife.

Compass-NAV Reverse Camera Installation manual

Caution – Documentation is an aid to successful installation. No liability is assumed for incorrect installation. If unsure of expertise required, please consult a qualified installation tech.

Insert the end of the camera cable in the hole and also run thru the camera securing nut.

Once completed, peel the waxed paper from the camera assembly

Position the lens of the camera facing the back of the trim and tighten the nut firmly.

Compass-NAV Reverse Camera Installation manual

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CNMD-R1 reverse camera for Sonata GL, GLS
Proceed to page 30

CNMD-R2 reverse camera for Sonata SE, Hybrid, Limited
Proceed to next page

Compass-NAV Reverse Camera Installation manual

Caution – Documentation is an aid to successful installation. No liability is assumed for incorrect installation. If unsure of expertise required, please consult a qualified installation tech.

Remove the license plate light from its connector by turning a quarter of turn the connector counter clock wise.

Unscrew both licence plate lenses and reserve.

Compass-NAV Reverse Camera Installation manual

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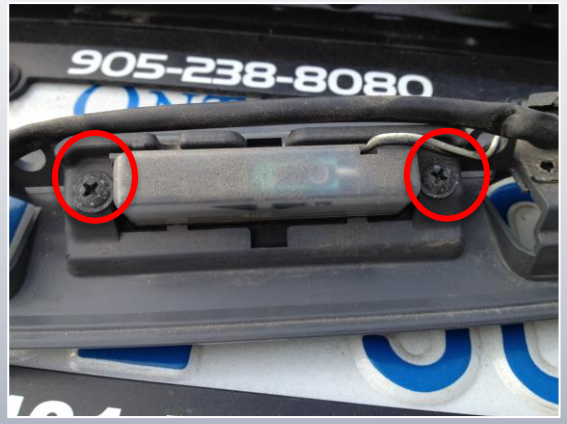
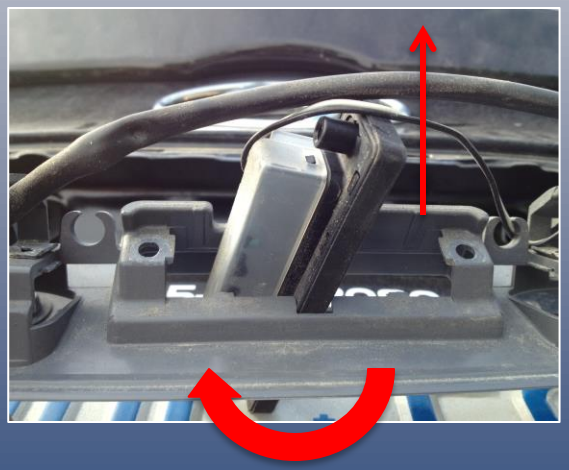


Unscrew the trunk electric latch from the GREY trim.



Slide the latch out of the trim as shown.

Compass-NAV Reverse Camera Installation manual

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Extract the electrical wires from the grey trim.

Compass-NAV Reverse Camera Installation manual

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Transfer the two metal clips retaining the licence plate lights to the new GREY trim.

Slide out the two plastic clips and transfer to the new GREY trim. Remember their orientation!

Compass-NAV Reverse Camera Installation manual

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Transfer to the new GREY trim the four (4) rubber grummets.

Re-assemble to the new GREY trim:

- Licence plate lights
- Trunk latch
- Clip the wires into their location.

Compass-NAV Reverse Camera Installation manual

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Install the reverse camera as shown. Align the camera metal support into the two embosses than screw it in place using the two provided screws.

Compass-NAV Reverse Camera Installation manual

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CNMD-R1 & CNMD-R2 reverse camera common procedure

Compass-NAV Reverse Camera Installation manual

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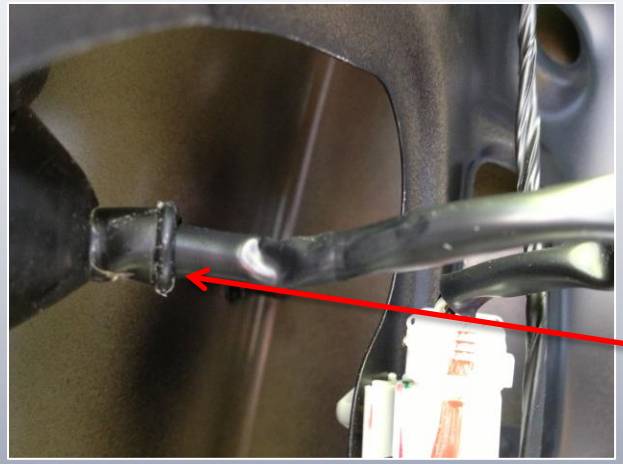

Remove the tape around the rubber boot traversing the trunk wall. This boot brings the wires for the licence plate lamps and trunk latch.

Run a fishing tool from the inside to the outside thru the rubber boot.

Secure the camera cable to the fishing tool and run the cable thru the boot to the inner side of the trunk.

Be Careful !!! Ease the passage of the fishing tool thru the boot by massaging it. Do not pull hard!!!!

Compass-NAV Reverse Camera Installation manual

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Before affixing the GREY trim to the car:

1- Pull the left over camera cable inside the trunk and leave just enough slack and bring the end close to the left lens. Secure along the way.
2- Secure the camera cable by inserting it into the trim wire clips along the existing wires. Again, leave a little slack.
3- Wrap with electrical tape the rubber boot traversing the trunk wall.

Affix the gray plastic trim to the car and engage the 2 retaining clips .

Compass-NAV Reverse Camera Installation manual

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Apply small tab of grease around the chrome trim snap holes. You may have chipped accidentally some paint off the trunk. Doing this will prevent corrosion under the trim.

Engage the chrome trim into its assembly holes them make sure the gray trim is under the chromed trim. Sometimes the gray trim may want to overlap outside.

Compass-NAV Reverse Camera Installation manual

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Snap in the chromed trim and make sure it is assembled correctly then screw back the 8mm socket head.

Reinstall the trunk lenses with their 10mm socket head.

Compass-NAV Reverse Camera Installation manual

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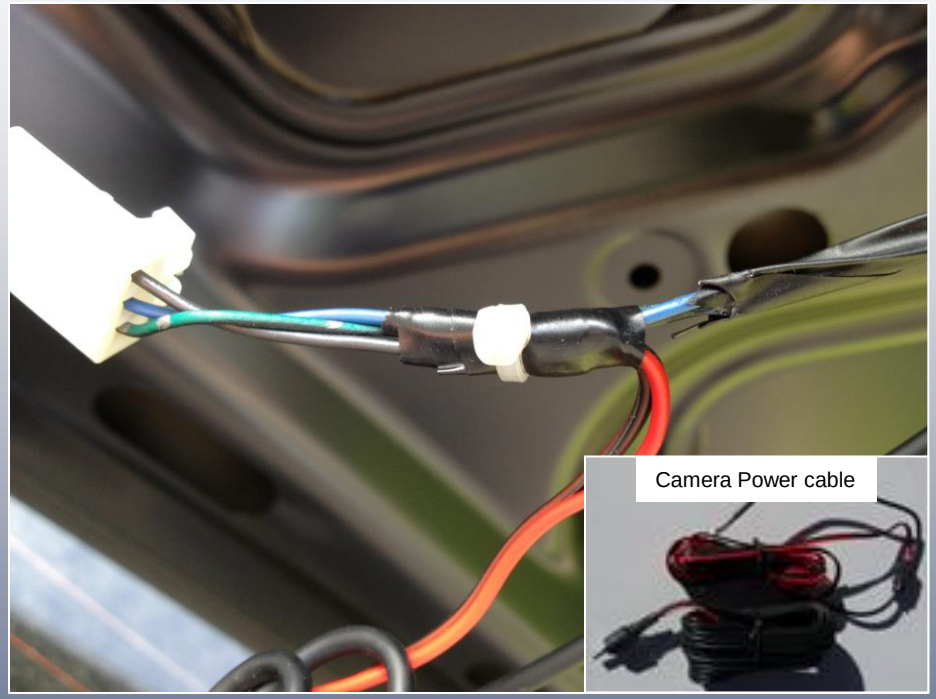

Locate the left rear lenses connector that was unplugged previously and prepare the Camera Power cable.

- Remove the wrapping around the wires on a length of 3-4 inches.
- Locate the BLUE and BLACK wires.
- Skin 3/8” off each wire.
- Take the **Camera Power cable** and cut to length approx. 12” the RED and BLACK after the fuse holder.
- Skin both ends of the BACK and RED wires.
- Solder the RED from the **Camera Power** cable to the BLUE of the car
- Solder the BLACK from the **Camera Power** cable to the BLACK of the car
- Isolate individually both wires with electrical tape and secure with a tie wrap.
- Re-connect to lenses both rear lenses connectors.

Compass-NAV Reverse Camera Installation manual

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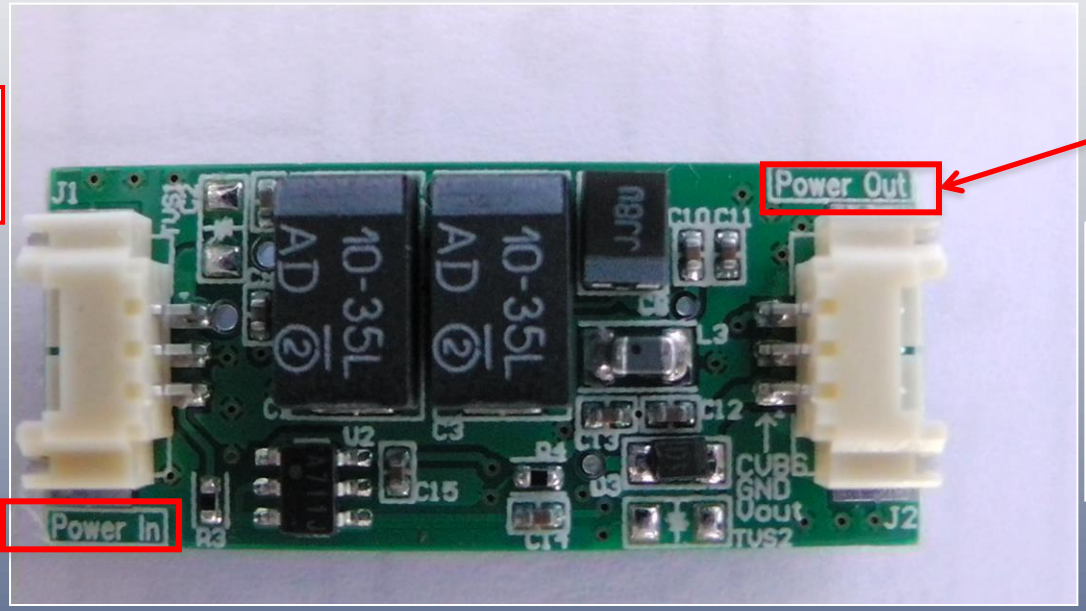
CNMD-R1 reverse camera connection to Camera Power Cable Sonata GL, GLS ONLY!!!

Camera Power cable



To camera

IMPORTANT

Attach the little white connectors from the Camera Power cable **AND** from the Camera to their respective sockets as shown above. Connectors can be inserted only in one orientation, do not force!!!

Compass-NAV Reverse Camera Installation manual

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Encapsulate the transformer board into the supplied plastic cover

Compass-NAV Reverse Camera Installation manual

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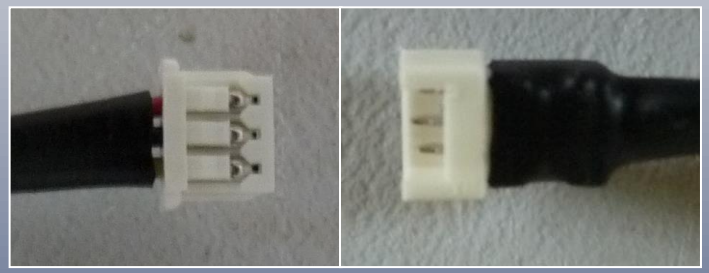
CNMD-R2 reverse camera connection to Camera Power Cable Sonata SE, Hybrid and Limited ONLY!!!

Camera Power cable



To camera

IMPORTANT

Attach the little white connectors from the Camera Power cable **AND** from the Camera to together as shown above. Connectors can be inserted only in one orientation, do not force!!!

Compass-NAV Reverse Camera Installation manual

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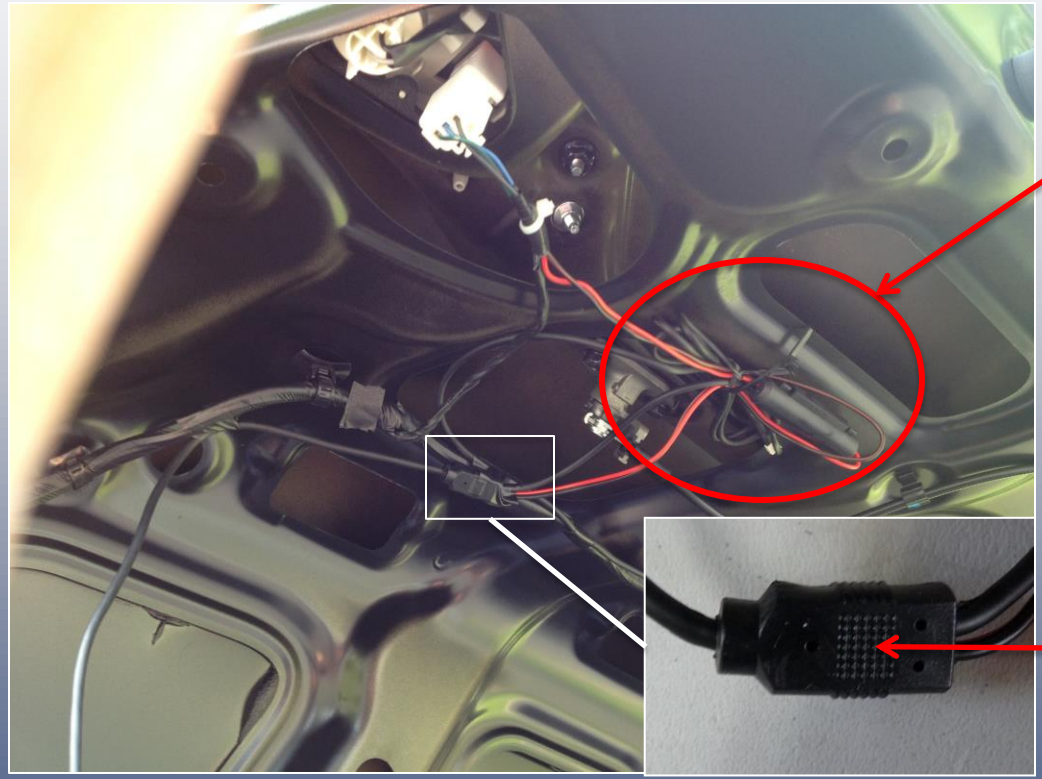

Bundle and attach the wires around the location shown and secure with a Tie wrap

Attach the plastic junction point on existing car wires as shown and start to route the Camera Power cable as described in the following pages.

Compass-NAV Reverse Camera
Installation manual

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Section 4
Power Cable installation.

Compass-NAV Reverse Camera Installation manual

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Run the cable inside the trunk following the existing factory cable.

We will run the camera cable along the trunk cable using the existing wrap clips.

Cut the tie wraps.

Compass-NAV Reverse Camera Installation manual

Caution – Documentation is an aid to successful installation. No liability is assumed for incorrect installation. If unsure of expertise required, please consult a qualified installation tech.

Move away the cable and extract the cut wrap from the clip.

Cut near the clip the wrap remnant from it.

Repeat this procedure for all the clips.

Compass-NAV Reverse Camera Installation manual

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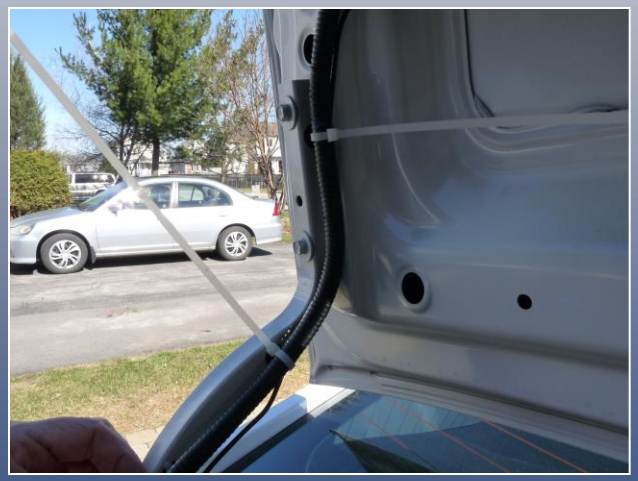
Using 3/16” width black tie wraps, run each of them into the slot of the clip as shown.



Secure the camera cable along the trunk cable and cut the remaining tie wrap.

Compass-NAV Reverse Camera Installation manual

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There is also a clip inside the trunk.

Pierce a hole into the wire boot big enough to run thru the RCA jack from the Camera Power cable.

Compass-NAV Reverse Camera Installation manual

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You are done on the trunk side, you can replace the lid, handle and clean up the a bit.

Compass-NAV Reverse Camera Installation manual

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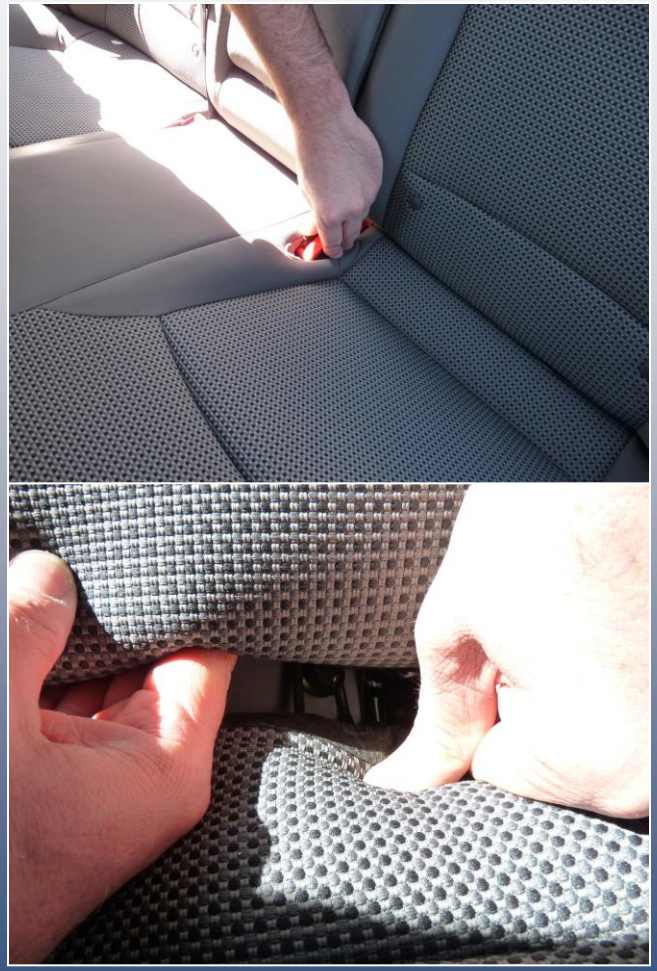

We will now run the cable to the head unit.

Insert the seat belt buckle inside the rear seat as far you can.

IMPORTANT: Sonata HYBRID see P:49

Locate the 13mm socket heads approximately 6” from the seat belt buckle on each side. Using a ratchet with a 6” extension will be easier.

Compass-NAV Reverse Camera Installation manual

Caution – Documentation is an aid to successful installation. No liability is assumed for incorrect installation. If unsure of expertise required, please consult a qualified installation tech.

Snap off the seat completely from each ends.

Remove the bench.

Compass-NAV Reverse Camera Installation manual

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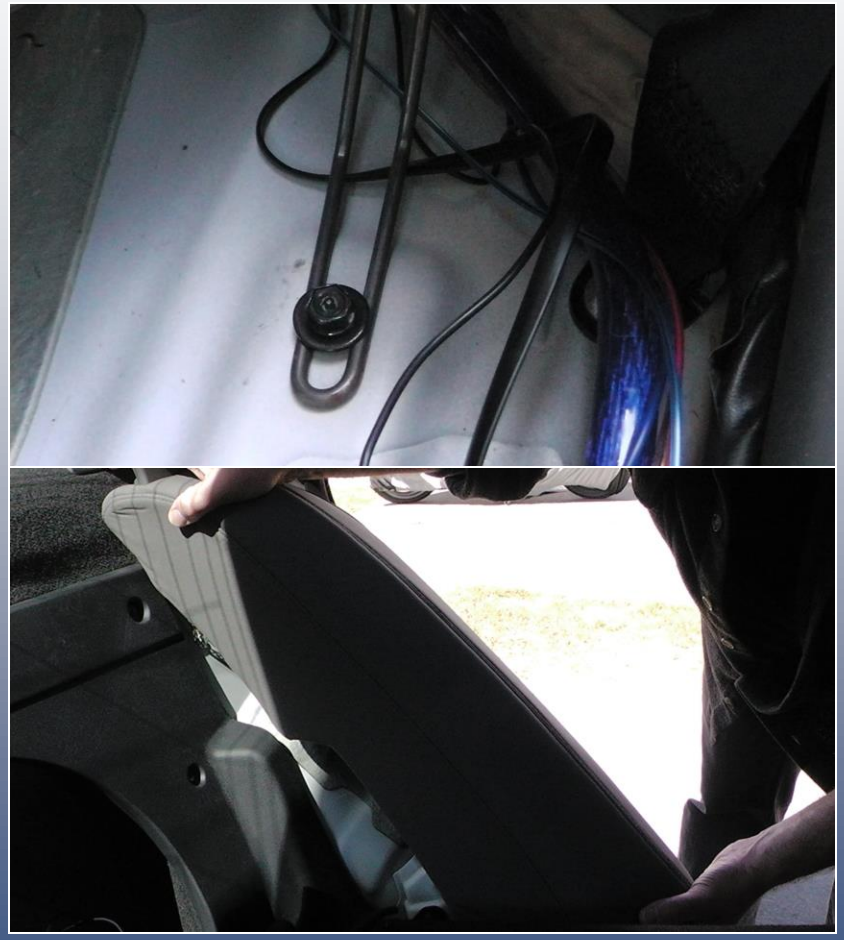

Remove the 13mm socket head from the side rest as shown.

Remove the side rest moving it upwards.

Compass-NAV Reverse Camera Installation manual

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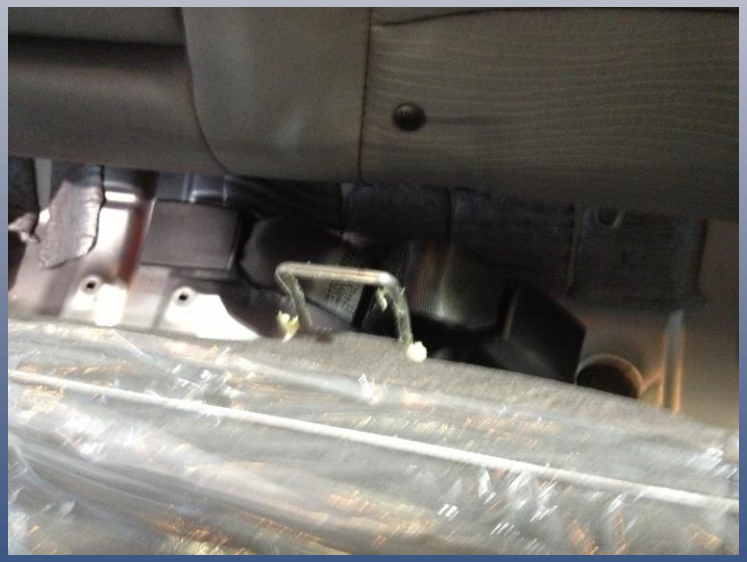
Sonata Hybrid Only P:49-50

Snap off the seat completely from each ends and lift all the way up.



When the bench is all the way up; pull gently the bottom of the bench until the rear retainers are released.

Compass-NAV Reverse Camera Installation manual

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Unscrew the four (4) 13 mm bolts retaining the back seat to the floor.

Pull the whole rear seat upwards and disengage from the rear retainers (4) Move the bench aside just enough to access the rubber boot to fish the camera power cable.

Compass-NAV Reverse Camera Installation manual

Caution – Documentation is an aid to successful installation. No liability is assumed for incorrect installation. If unsure of expertise required, please consult a qualified installation tech.

Locate the Phillips screw as shown and remove

From the back, lift the door sill as shown. This procedure may require a little bit of force to unclip the sill from the metal frame.

Compass-NAV Reverse Camera Installation manual

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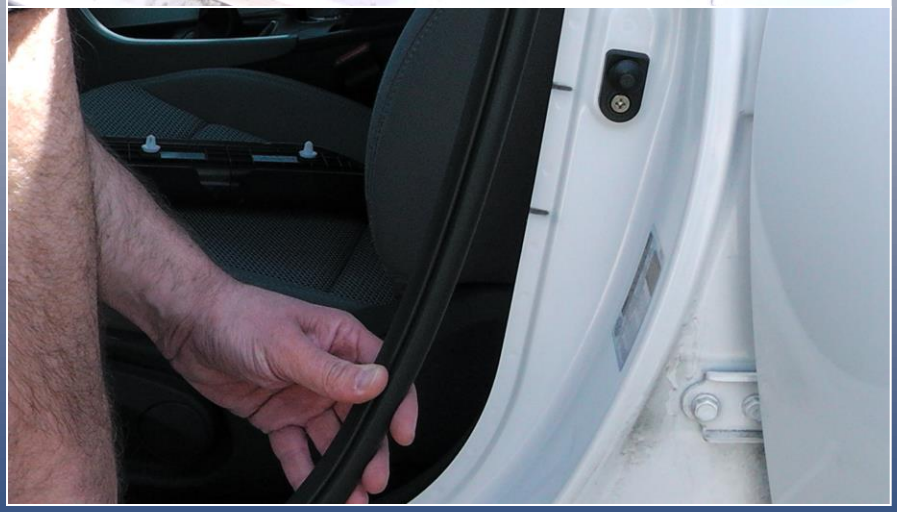
Do the same for the driver door



Remove half way the weather strips

Compass-NAV Reverse Camera Installation manual

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Pull the weather strip covering the driver side kick panel and unsnap only the top part of the driver left side kick as shown. You don't need to remove the side kick completely.

From the back seat side, run a fishing tool thru the wire rubber boot, attach the RCA jack from the Camera Power cable and pull gently the cable slack.

Compass-NAV Reverse Camera Installation manual

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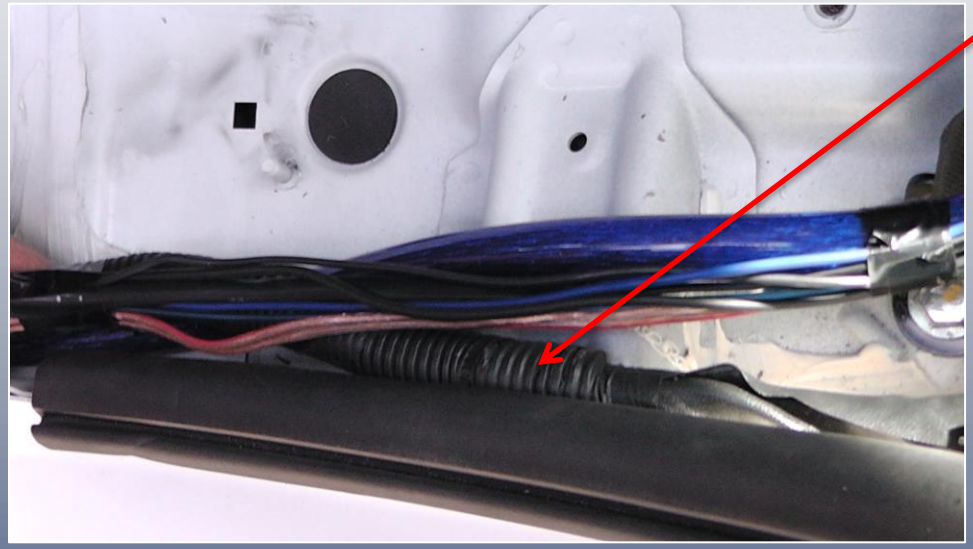

Secure the Camera Power cable along the car wire channel as shown.

Use a fishing tool to run the cable from the rear to the front under the center pillar trim. Always follow the wire channel up to the next page instructions.

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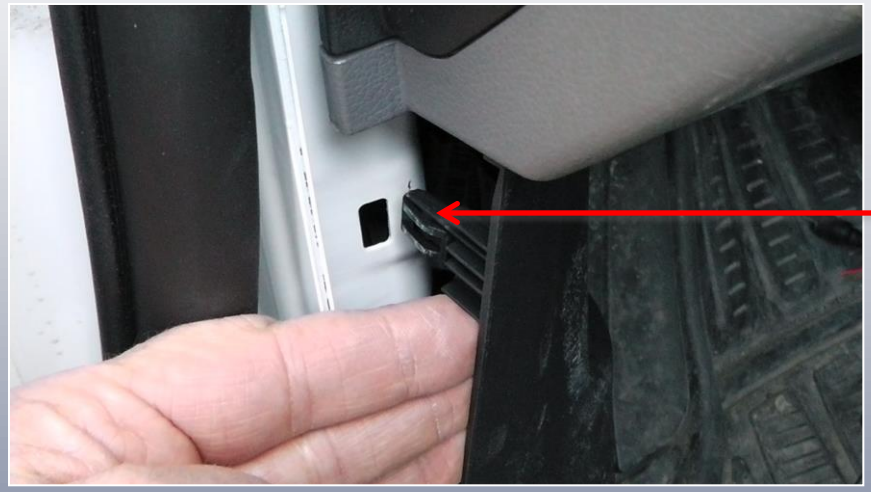

Run the camera cable behind the side kick by passing it behind the trim clip and push the cable as far you can.

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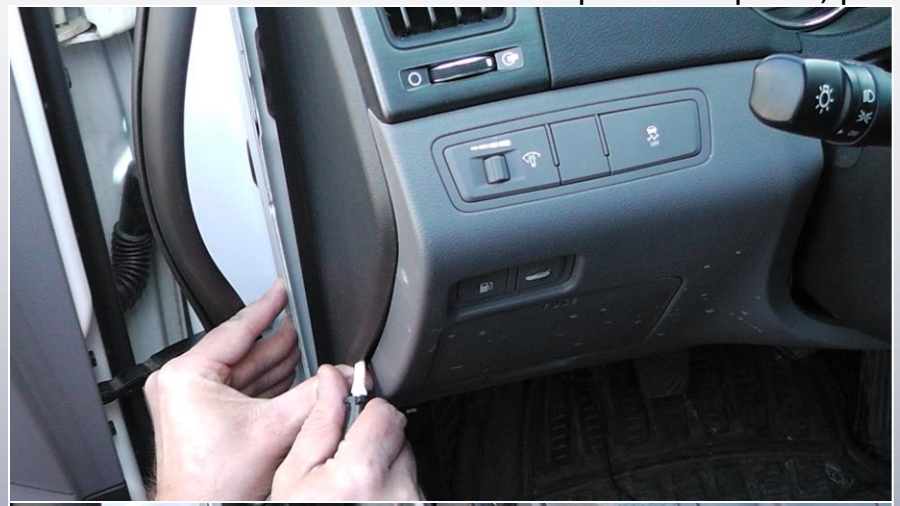
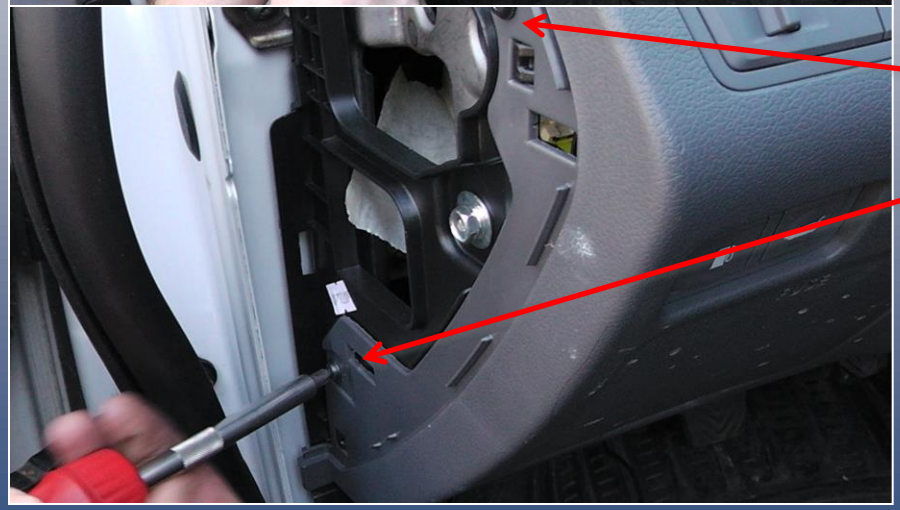


Lift the side cover as show



Remove the 2 screw on the side of the crash pad

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Remove the 2 screws at the bottom of the crash pad.

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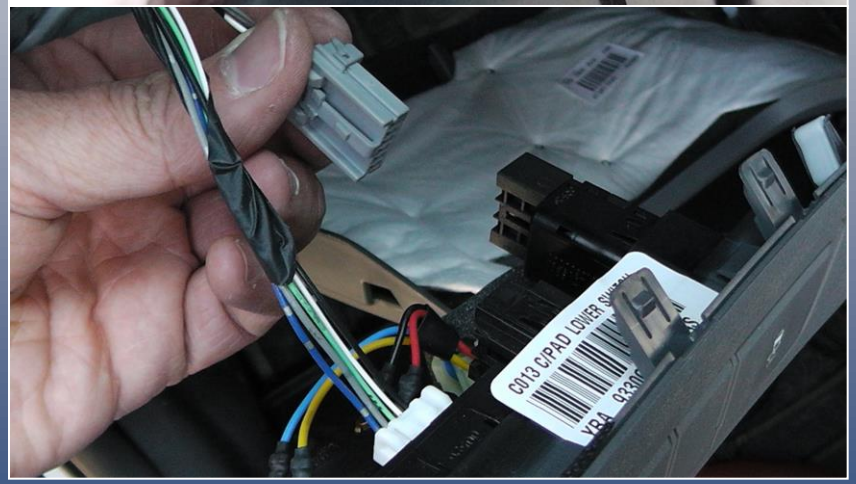

Unclip the crash pad on top. The crash pad is well clipped, you may need a bit of force.

Remove the multi-way connectors the back of the crash pad

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Run the camera cable close to the fuse box and secure it close by with electric tape.

Run the camera wire along the **Parking Assist System** it is the good time to run its cable at the same time.

As shown here the backup camera cable and the Parking Assist System connector.

Bring those wire close enough to proceed later at the head unit install.

Compass-NAV Reverse Camera Installation manual

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Put back together the trim pieces and removed components.

Refer to the Sonata CN-M5 installation manual Appendix 2 for reverse camera connection to the head unit.

Compass-NAV Reverse Camera Installation manual

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You did It!

Compass-NAV Reverse Camera
Installation manual

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Section 5
Other types of Camera

Compass-NAV Reverse Camera Installation manual

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This section covers other type of cameras that can work with the CN-M5 device.

It is important to understand that the CN-M5 reverse screen is activated by the 12 volts reverse current. Some or most aftermarket backup cameras are not built with a wire to bring power of the reverse light to the head unit and a work around is covered in this section to avoid running a wire from the trunk to the head unit.

Locate the RED wire of the "REAR PWR" cable from the MAIN I/O 1 and joint a wire, preferably red at length of 6'.

Run and secure this wire to the left side plastic kick panel and follow the following page instruction.

Remove the side kick panel by pulling the door seal and unsnap one part of the plastic like shown at page 41. Then remove the plastic plug retaining the panel located under the parking brake.

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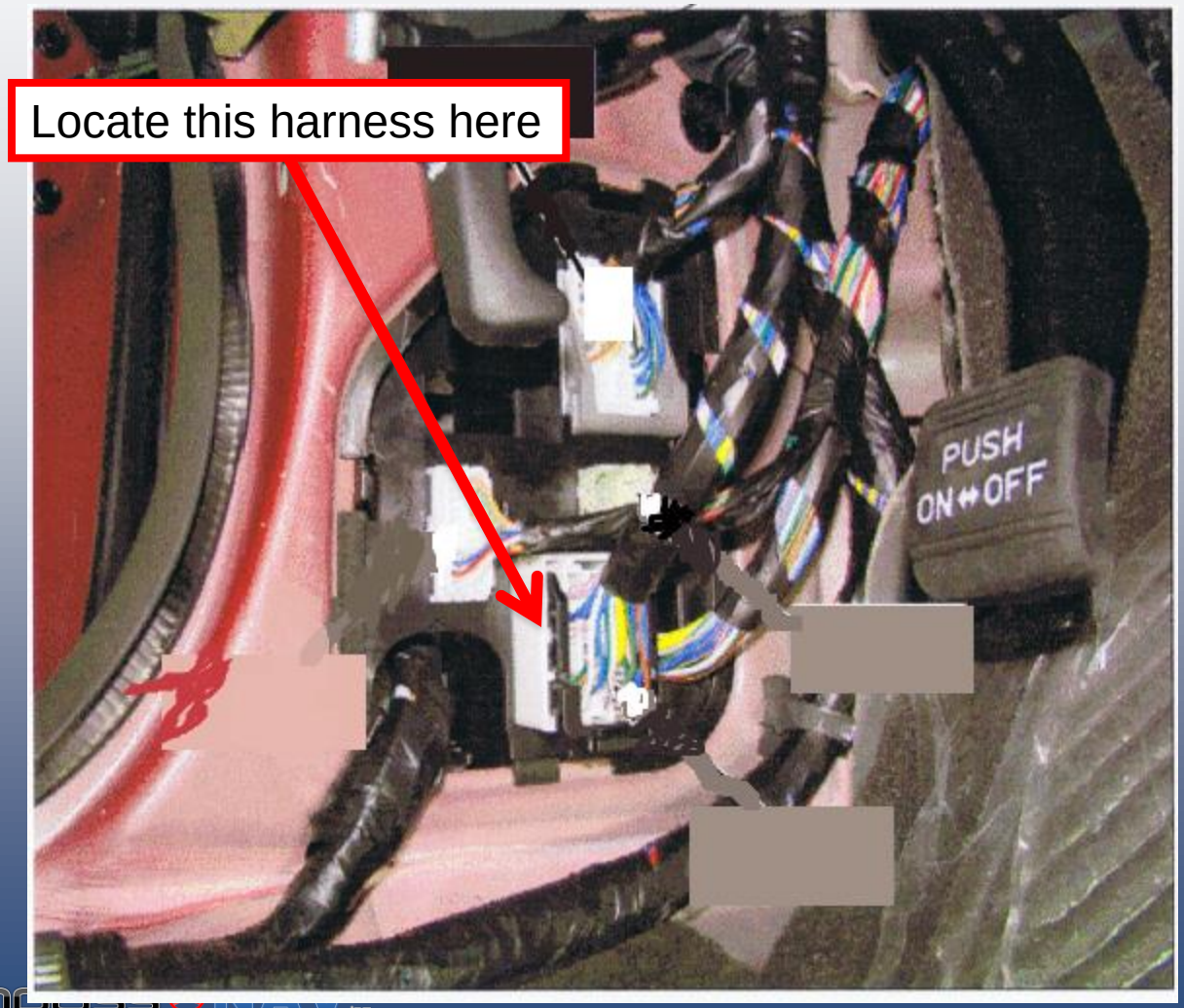

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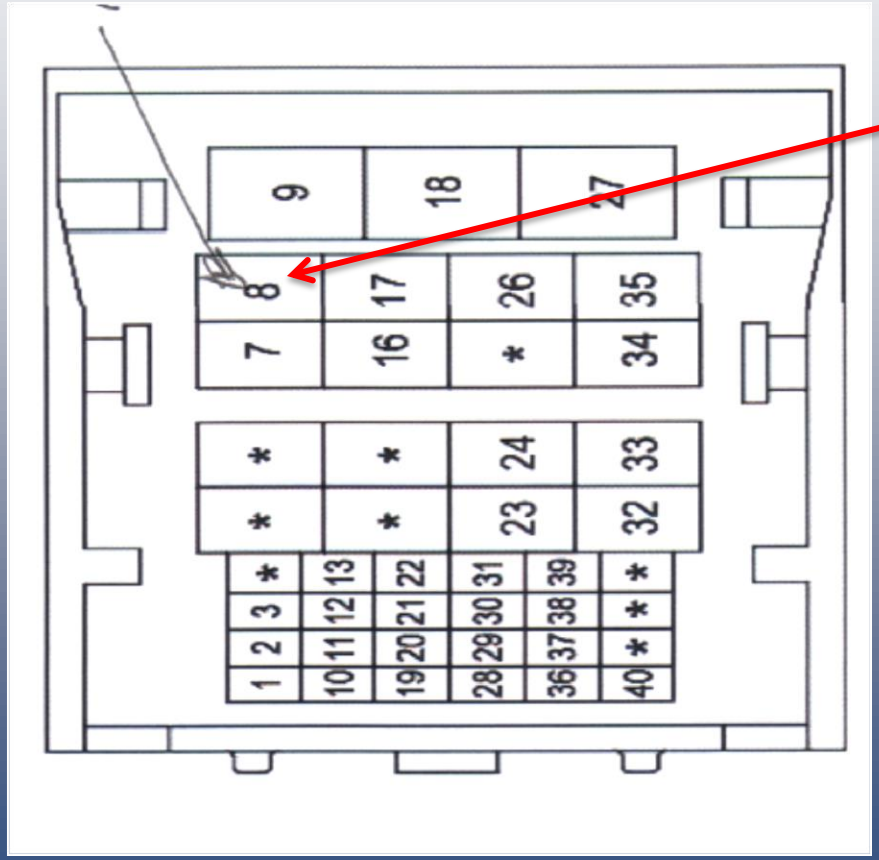

Tap wire onto BLUE wire on #8 pin as shown

You are done, now connect the black wire of REAR PWR of MAIN I/O 1 to ground. Refer to the Appendix 2 of the CN-M5 installation manual for proper location.

Compass-NAV Reverse Camera Installation manual

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END